

New York State Department of Transportation

Yellow Flag NB22CTW024

By: Rehan Afridi

Flag Date: July 22, 2022

Superseding Information:

No Flags Superseded

Structure Information

BIN: 1065318

Feature Carried: 278I278IX2M23027

Feature Crossed: 6TH AVENUE

Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY

County: KINGS

Political Unit: City of NEW YORK

Approximate Year Built: 1962

Posted Load Matches Inventory : No

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.

Date: July 22, 2022 2:00:00 PM

Of: NYSDOT Region 11

Signature Information

Signature: Rehan Afridi, P.E. 075185

Date: August 09, 2022

Reviewed By: Robert Kemp

Date: August 10, 2022

Attachments: 6

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 183			
	107 - Steel Open Girder/Beam	989	ft
	PR831 - Steel Beam End	42	each

Flagged Condition Description

This Yellow Flag No. NB22CTW024 is NEW.

Location: Span 183, Girder G1 at Pier 182

Description: The end of Girder G1 web in Span 183 at Pier 182 exhibits overall 49% section loss for full height along the connection angle (see Sketch).

Additionally, the lower web of the left side of the girder at the pier exhibits a 2" high x 3'-0" long area with 1/8" to 3/16" deep section loss and the left side connection angle exhibits up to 7/8" thick pack rust for full height, heavy corrosion with 30 to 35% section loss throughout, and 15 to 20% section loss at rivet heads. The right side connection angle exhibits up to 1/8" thick pack rust at the top 3 inches with two (2) corrosion holes, 1/2" high x 1-1/2" wide at the top and a 1" dia. corrosion hole at the bottom (see Photo 5 and Sketch).

This is a NEW flag.

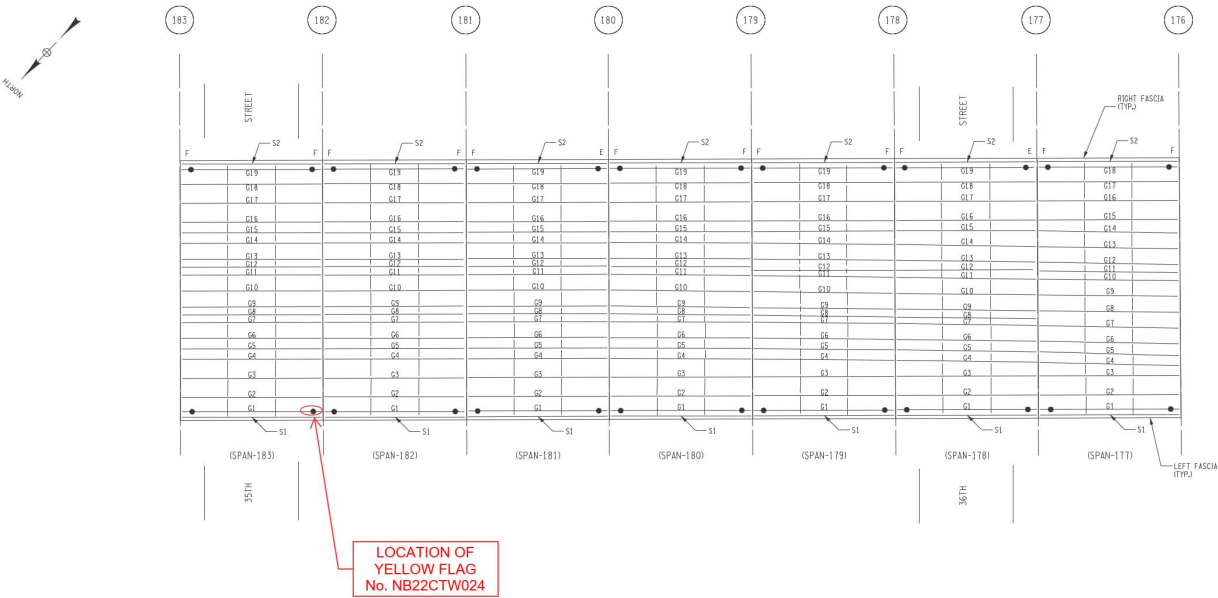
Notes:

- 1.The affected member, Girder G1 is load path redundant. The field measured web thickness is 0.628".
- 2.The adjacent Stringer S1 (left side) spaced 2'-01" center to center is in fair condition (bottom flange right side has a 2-1/2" wide x 3" long corrosion hole at the end).
3. The adjacent Girder G2 (right side) spaced 5'-0" center to center has repair plates installed and is in good condition.
- 4.Double left lane closure at 3rd Avenue Westbound between 34th and 36 Streets, and a 35' bucket truck are required to access this location.

Flag Photographs

Photo Number: 1

Photo Filename: Framing Plan.jpg



Attachment Description: Framing Plan - Span 183

Photo Number: 2

Photo Filename: Span 183_G1 at Pier 182_Sketch.jpg

Gowanus Expressway
2022 Biennial Inspection - Field Sketch

BIN: 1065318

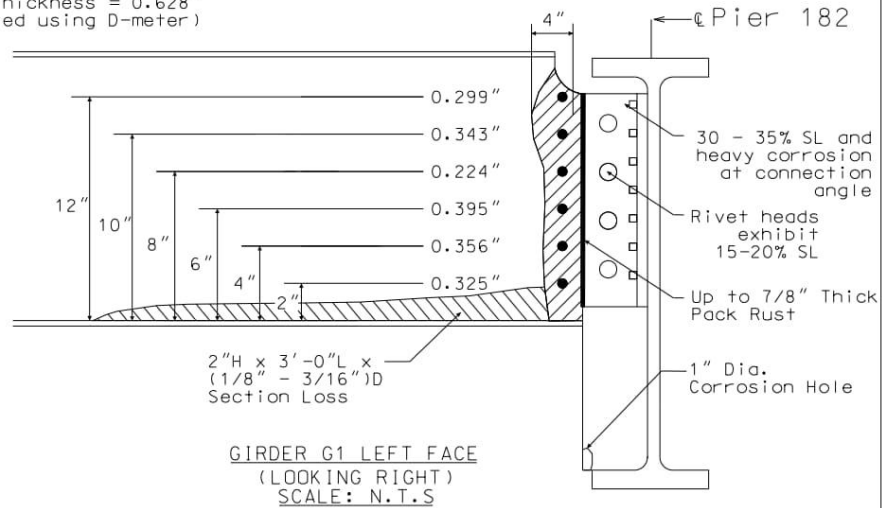
Team: RA/MP

Date: 07/22/2022

Span: 183

Location: G1 @ Pier 182

Web Thickness = 0.628"
(Measured using D-meter)



SHEARING WEB SECTION LOSS

$$\text{Average remaining web section} = \frac{(0.299 + 0.343 + 0.224 + 0.395 + 0.356 + 0.325)}{6} = 0.323 \text{ inches}$$

$$\text{Web section loss} = [1 - (\frac{0.323}{0.628})] \times 100\% = 48.56\% \text{ SAY } 49\%$$

SPAN 183

@ PIER 182

G 1

wsp

Attachment Description: Yellow Flag Condition Sketch

Photo Number: 3

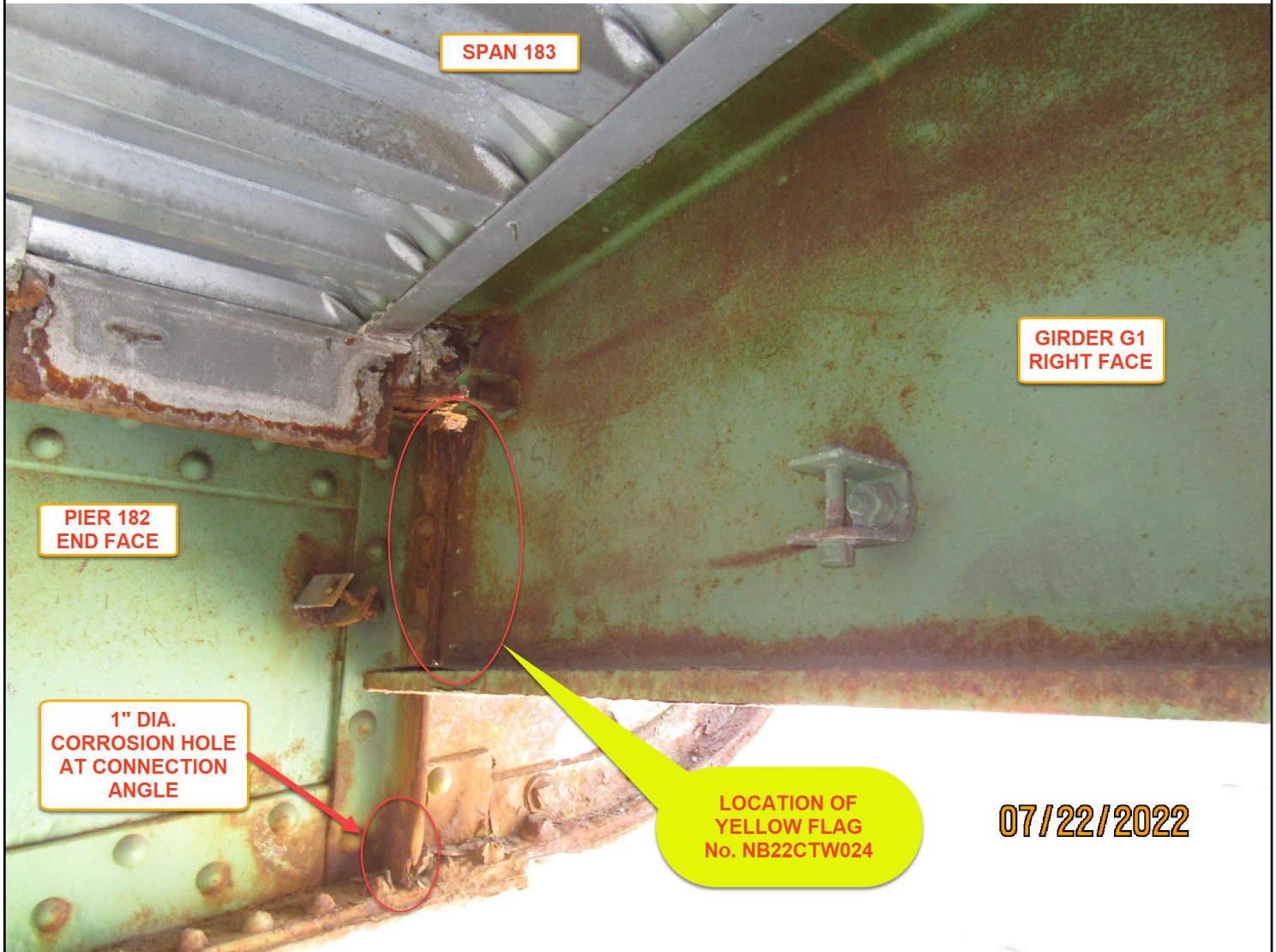
Photo Filename: Photo 1-RA 663_2790.jpg



Attachment Description: General view of the flagged condition at Span 183 Girder G1 at Pier 182. Looking Begin.

Photo Number: 4

Photo Filename: Photo 2-RA 663_2795.jpg



Attachment Description: Close up general view of the flagged condition at Span 183 Girder G1 at Pier 182. Looking Begin Left.

Photo Number: 5

Photo Filename: Photo 3-RA 663_2796.jpg



Attachment Description: The right side connection angle exhibits up to 1/8" thick pack rust at the top 3 inches with a 1/2" high x 1-1/2" wide corrosion hole at the top. Looking Begin Left.

Photo Number: 6

Photo Filename: Photo 4-RA 663_2792.JPG



Attachment Description: The left side of Girder G1 web exhibits a 4" wide x full height area with heavy corrosion along the connection angle. D-meter readings indicate up to 49% section loss. The lower web exhibits a 2" high x 3'-0" long area with 1/8" to 3/16" deep section loss. Looking Begin Right.